REPUBLIC OF MAURITIUS

MINISTRY OF FOREIGN AFFAIRS, REGIONAL INTEGRATION AND INTERNATIONAL TRADE

Ref. No. 18570/115/21 **31 October 2008**

Sir,

Submission of Views on Ways to Integrate Biodiversity Considerations in Climate-Change Related Activities

I have the honour to refer to your e-mail dated 21 August 2008 and to attach herewith the views on ways to integrate biodiversity considerations in Climate Change Related Activities.

Please accept, Sir, the assurances of my highest consideration.

N. Gunesh

N. Gunesh (Mrs)
***for* Secretary for Foreign Affairs**

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Template for the submission of views by Pardes on the integration of biodiversity considerations in climate change related activities

1. Integrating Biodiversity in Climate Change Mitigation

Mitigation Approach	Description of Activity *	Potential Benefits	Disadvantages/Challenges
Land use, Land Use Change and Forestry	Reafforestation (10% of native species)	- Carbon sequestration - Soil & water conservation	- exposed to natural calamities - short of resources
Reducing emissions from deforestation and forest degradation	- Enforcement - Fire control - Pest control	- Less deforestation - less soil erosion	- Shortage of labour and staff
Other (specify)	Providing incentives to private sector to reafforest	Larger extent of forest cover	- unwillingness to invest in long term sector

* Description of the activity that can be undertaken to enhance the integration of biodiversity considerations in climate change mitigation including examples of implementation where available.

2. Integrating Biodiversity in Climate Change Adaptation

Adaptation Approach	Description of Activity *	Benefits of Integration	Disadvantages/challenges
Protected areas/conservation	- Rehabilitation of Nature Reserves and other areas rich in biodiversity	- Healthy Biodiversity - Protectig native remnant forest and wild life	- Shortage of staff and labour - Insufficient funds
Ecosystem restoration	- Weeding of alien invasive species	- Enhance natural regeneration	- Insufficient of funds
Forestry, fishery, agriculture or water sector planning	Sustainable Forest Management	- Agro Industry - Water shed management	- shortage of staff
Infrastructure development/upgrading	- Tree Seed Centre - Greenhouse Unit	- Ensure rehabilitation of degraded forest areas	- More Nature Walk should be created - Insufficient funds for their management
Alternative livelihoods	- Nature walks created	- Recreational and Leisure	- Shortage of staff and capacity building
Other (specify)	- Awareness program	- Sensitize people of conservation issues	- Shortage of staff and capacity building

* Description of the activity that can be undertaken to enhance the integration of biodiversity considerations in climate change adaptation including specific examples of implementation where available.

3. **Integrating Biodiversity in Climate Change Policies and Planning**

Description of how biodiversity considerations can be integrated into national and regional climate change policies and planning including: building an enabling environment, involving stakeholders, avoiding additional cost and reporting burdens, etc.

Integrating biodiversity considerations into climate change policies is to add the component of Biodiversity Impact Assessment (BIA). The BAI can be a powerful tool for the assessment of project-based climate-related activities and should provide practical guidance on biodiversity aspects to be included into the different steps.

Native and endemic plants should be given priority in afforestation / reafforestation projects. Climate change and conservation of Biodiversity policies and planning should be harmonized and streamlined.

The use of native/endemic plant species in afforestation / reafforestation programme Environment Impact Assessment (EIA) is a powerful tool for the assessment of project-based climate-related activities. To provided practical guidance on biodiversity aspects to be included into the different steps in EIA.

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Views on ways to integrate biodiversity consideration in climate related activities

I. Integrating Biodiversity in Climate Change Mitigation

Mitigation Approach	Description of Activity	Potential Benefits	Disadvantages/Challenges
Land Use Land Use Change and Forestry	• Forest replantations • Delayed harvesting • No harvesting • Land under sugar cane to be converted to Agro-Forestry	• Increase in Forest/Green cover • Increased carbon Sequestration, water conservation	• Progress – slow increase creation of pasture for ruminant farming productions (CH_4 production), urbanization.
Reducing emissions from deforestation and forest degradation	• Alternative energy use • Restoration of forest • Prevention of soil erosion • Control of ruminant animals numbers in forest areas • Prevention of burning and fire hazards, etc.	• Reduction in GHG • Improvement of Forest cover and increase in carbon sequestration.	• Poverty and use of alternative energy
Other (specify)			

*Description of the activity that be undertaken to enhance the integration of biodiversity consideration in climate change mitigation including examples of implementation where available

2. Integration Biodiversity in Climate Change Adaptation

Adaptation Approach	Description of Activity	Benefits of Integration	Disadvantages/Challenges
Protected areas / conservation	• Increase in area under rotection • Reduction of Invasive species • Planting of trees which will not be harvested (endemic) • Reduction of animals (ruminants) in protected areas	• Increase area of permanent forest • Increase carbon Sequestration & water conservation, & prevention of soil erosion	• Scarcity of land and pressure of residential industrial development. New legislation to encourage long term management of potential protected areas.
Ecosystem restoration	• Creation of new/additional Protected area network, Nature reserves • Protection of Wetlands • Control of Invasive species Delaying logging	• Improvement of Eco-system Services • Water Leisure/Nature Park • improvement of water quality in rivers	• Population increase • Industrial Development • Increase agricultural Production & concern about food security. • Tourism development

Forestry, fishery, agriculture or water sector planting	• Replanting of Forest • Control Fishing • **Agriculture:** - Use of ancient / tolerant varieties, endemic plants, etc. • Water: - wise and economic use of H_2O - irrigation use of varieties adapted to climate extremes	• Conservation of eco-systems • Biodiversity • water	• Increase mechanization and use of fossil fuel pressure to produce more food using industrial techniques. • Increase demand for H_2O
Infrastructure development/upgrading	• Avoid developing areas rich in biodiversity and endemic fauna/flora (eg. Ferney valley) Environment Impact Assessement for any development and conservation of native plants/animals. • Use of endemic Plants in landscaping and upgrading • Preservation of wetland areas.	• Protected areas maintained/enriched, conservation of biodiversity • Sustainable use	• Scarcity of land and pressure of development.

Alternative livelihoods	• Conversion of fisherman to alternative kind of livelihoods • Voluntary abandonment of fishing licenses/lease etc. • Prohibition of sand collection from the sea. • Ruminant farming to other non CH4 producing animals.	• Conservation of sensitive zones prevent depletion of fish stock & sustainable fishing. regeneration of corals • Reduction is GHG (CHN)	• Progress slow • Political willingness to take unpopular decision. • Public pressure/outcry
Other (specify)			

*Description of the activity that can be undertaken to enhance the integration of biodiversity considerations in climate change adaptation including specific examples of implementation where available

3. Integrating Biodiversity In Climate Change Policies and Planning

Description of how biodiversity consideration can be integrated into national and regional climate change policies and planning including building an enabling environment, involving stakeholders, avoiding additional cost and reporting burdens, etc.

- **Main effects of climate change:**
    - Based on the main effects of climate change affecting small island like Mauritius (mainly increase in temperature, heavy rainfall & flooding , severe cyclones, and drought, sea level rise, etc) national and regional policies should focus more on legislation, creation of fund, providing incentive, protecting biodiversity (plant and animals) , training of people so that the following can be implement successfully:
    - Conservation of forest and water catchments areas, use of variation tolerate to extreme climatic condition
- Conservation of wetlands (prevent flood)
- Conseravation of endangered species which are prone to extinction (flora and fauna).

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2. Integrating Biodiversity in Climate Change Adaptation- Republic of Mauritius

It is important to know that better management of natural resources improves a country's ability to adapt to climate change. The main problems encountered with respect to climate change in the marine ecosystems is the loss of habitats due to natural calamities like tidal waves, cyclones and coral bleaching due to rise in sea surface temperature. Man made problems can further aggravate the adaptation mechanism of an island state to climate change.

ADAPTATION APROACH	DESCRIPTION OF ACTIVITY	BENEFITS OF INTEGRATION	DISADVANTAGES/ CHALLENGES
Protected areas/ Conservation	Establishment of more MPAs	Sustainable development of available marine resources to safeguard biodiversity	Commercial coastal development vs. conservation
Ecosystem restoration	(i) Regular monitoring of available resources including water quality eg. Coral reefs, sea grass beds, fish & invertebrate abundance and diversity.	Data collected forms a database against which ecosystem changes can be compared	(i) Rehabilitation of the degraded corals
	(ii) Study on coral bleaching	Scientific data on status of corals during and after bleaching and their adaptation	(ii) Use of farmed corals to rehabilitate denuded coral reef areas
	(iii) Coral farming both ocean and land based	Prevent loss of biodiversity of coral species	
	(Iv) Monitoring of mangroves and their propagation	Prevent soil erosion and provide nursery grounds for marine species	(iii) Reduction of mangrove cover due to coastal development

3. Integrating Biodiversity in Climate Change Policies and Planning

- Use of sustainable fishing practices (net buy back policy);
- Create awareness amongst all stakeholders on the importance of sustainable use of available resources and climate change issues
- Studies on deep-sea migrating fish stocks.